



QUESTION TWO

- (a) In the four sided figure ABCD, $AB = 6\text{cm}$, and $AC = 7\text{cm}$, Angle $BAC = 49^\circ$, Angle $ADC = 74^\circ$, and Angle $DAC = 30^\circ$.

Calculate

- (i) length of BC
- (ii) length of DC
- (iii) length of BCA

In each, give your answers to one significant figure.

(9 marks)

- (b) Find x in the following equations:

- (i) $(3x - 4)(5x + 19) = 0$
- (ii) $2^x = 3^{x-1}$
- (iii) $3x^2 - 5x = 4$
- (iv) $4x^2 - 8x - 45 = 0$
- (v) $\frac{4x-1}{3} - \frac{2x+1}{4} = \frac{6x}{5}$

In each give your answers to one decimal place.

(16 marks)